

Remarks

Overview

Claims 1-24 are currently pending in the application. Claims 1-6 and 8-24 stand rejected. In addition, the Examiner has indicated that claim 7 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Applicants hereby cancel claims 15-24 without prejudice. Applicants specifically reserve the right to file a continuation application directed to the claim cancelled in this amendment.

Claim Status and Amendments

The Examiner's indication of objected to subject matter with respect to claim 7 is noted with appreciation. As a result, without acquiescing to the rejections and to expedite allowance of the application, Applicants hereby amend claims 1, 4-6, and 9 and add new claims 25 and 26. New claim 25 incorporates elements from claim 7 and the claims it depends from. As such, claims 1-14, 25, and 26 are now presented for the Examiner's consideration.

Rejections Under 35 USC § 112

The Examiner rejected claims 1-14 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the examiner alleges that the term "magnetic path part" is abstract and unclear. In addition, the examiner has requested clarification with respect to the term "wire-shaped bodies."

The expression "magnetic path part" refers to a physical component of the present invention. As described in the specification and in Figures 1b and 7, a magnetic path part denotes a group of substantially adjacent wire-shaped bodies with end surfaces. One feature of the present invention is to situate the magnetic path part in the area where the magnetic field lines are naturally located. However, since the magnetic path part recited in the claims comprises additional elements, without acquiescing to the rejection, the relevant claims have been amended to delete the term "magnetic path part."

As described in the specification a wire-shaped body corresponds to an element having the shape of a wire or a wire body. In addition, in paragraph [0024] of the as filed application the term "wire" and "wire body" are unambiguously described. Specifically, paragraph [0024] provides:

The term "wire" and "wire body" is used in the present description in order to identify a body where the length is several times greater than the width of the cross-section (diameter in the case of a round cross-section). Both the wire and the wire body may consist of a single wire or of a loosely wound conductor with many individual wires.

For at least these reasons, Applicants submit that amended claims 1 and 9 and the claims that depend there from particularly point out and distinctly claim the subject matter of the invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 112, second paragraph rejections.

The Cited References Fail to Teach or Suggest the Invention

The Examiner rejects claims 1-2, 4, 5, 6, 9, and 12-13 under 35 U.S.C. 103(a) as being unpatentable over DelVecchio et al (U.S. Patent No. 4,595,843) (hereinafter DelVecchio).

Claims 3 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DelVecchio et al. in view of Abe et al. (U.S. Patent No. 6,531,946 B2) (hereinafter Abe). Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over DelVecchio in view of Hernandez Cruz (U.S. Patent No. 6,535,099 B) (hereinafter Hernandez Cruz).

Claims 1 and 9 stand rejected as obvious in light of the alleged teachings of DelVecchio. As amended, claim 1 recites an end piece for magnetic coupling of core parts to a closed path for magnetic flux such that, in part, the end piece includes *a plurality of substantially adjacent, wire-shaped bodies*, each wire-shaped body comprising end surfaces and at least *an abutment surface* for abutment of the end surfaces against the core parts, wherein the *abutment surface comprises the end surfaces of the wire-shaped bodies*.

Similarly, amended claim 9 recites at least one core part and at least one end piece. In addition, the end piece of amended claim 9 includes at least *an abutment surface for abutment against the core part and a plurality of substantially adjacent, wire-shaped bodies*, and wherein *the abutment surface comprises the end surfaces of the wire-shaped bodies*. New claims 25 and 26 recite end pieces that include similar elements such as abutment surfaces and wire-shaped bodies.

For the reasons set forth below, we submit that end faces in general, that recite wire-shaped bodies and, in particular, end faces that include abutment surfaces formed from wire-shaped bodies are not disclosed or even suggested by the cited references.

DelVecchio describes a rotating flux transformer. In particular, Figure 6 of DelVecchio depicts two cylindrical cores that are placed side by side. Thus, the transformer shown in Figure

6 is a toroid with elongated sides. The transformer end caps 56 and 58 described in DelVecchio are only described as constructed of core material, possibly cylindrical, and joined to the cylindrical cores 49 and 50 of the same figure by means of miter joints (column 5, line 43-50).

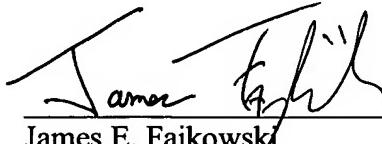
The present invention is not concerned with joining solid end caps to parallel cylindrical cores. Instead, the present invention relates to end pieces suitable for controlling magnetic losses by incorporating wire portions such that the wire-bodies that form the end pieces serve as abutment surfaces that core pieces. Typically, the end pieces claimed are used for containing magnetic fields in concentric core piece devices. The abutment surfaces of the end pieces claimed are formed from wire-bodies.

The end caps of DelVecchio do not include wire-bodies. Clearly, the end caps of DelVecchio do not contain abutment surfaces that are formed from a plurality of wire bodies. For at least these reasons, Applicants submit the amended claims 1, 4-6, and 9 and new claims 25 and 26 are patentable over the cited reference. Accordingly, Applicants respectfully request reconsideration and withdrawal of these rejections.

Claims 3 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DelVecchio et al. in view of Abe et al. (U.S. Patent No. 6,531,946 B2) (hereinafter Abe). Abe shows a ring core. Ring cores do not include end pieces as they only include core parts. For at least these reasons, Applicants submit that the amended claims 3 and 10-11 are patentable over the cited references. Accordingly, Applicants respectfully request reconsideration and withdrawal of these rejections.

Applicants respectfully submit that the foregoing arguments overcome the Examiner's rejections and that the pending claims are in condition for allowance. The Examiner is invited to contact Applicants' undersigned representative by telephone at the number listed below to discuss any outstanding issues.

Respectfully submitted,



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Date: December 5, 2005
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